



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Molson Coors – Shenandoah Brewery
Facility Name:	Molson Coors – Shenandoah Brewery
Facility Location:	5135 South Eastside Highway Rockingham County, Virginia
Registration Number:	81012
Permit Number:	VRO81012

Effective Date
July 1, 2016

Amendment Date
June 9, 2020

Expiration Date
June 30, 2021

A handwritten signature in blue ink, appearing to read "B. K. Hill", written over a horizontal line.

Deputy Regional Director

June 9, 2020
Signature Date

Permit consists of 48 pages
Permit Conditions, 42 pages
Table of Contents, one page
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Facility Information

Permittee

Molson Coors – Shenandoah Brewery
5135 South Eastside Highway
Elkton, Virginia 22827

Responsible Official

Lori Michelin
Plant Manager/Vice President

Facility

Molson Coors – Shenandoah Brewery
5135 South Eastside Highway
Rockingham County, Virginia

Contact Person

Matthew Pomerleau
Environmental Engineer
540-289-8112

Facility Description: NAICS Code 312120 – Malt Beverages

Molson Coors – Shenandoah Brewery (Molson Coors) manufactures malt beverages. Operations at the facility include a brewery (grain handling, brewing, fermenting, aging, and conditioning processes), packaging (bottles, cans, and kegs and carton assembly and label application), and a wastewater treatment plant. In addition, there are auxiliary processes supporting the operations.

Molson Coors is a Title V major source of nitrogen oxides (NO_x) and volatile organic compounds (VOC). This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility is currently permitted under a minor new source review permit approved on June 10, 2011, as amended on November 18, 2013, February 3, 2016, July 12, 2017, and October 5, 2017. The Title V operating permit was effective on July 1, 2016 and expires on June 30, 2021.

Emission Units and Control Device Identification

The emission units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit
Fuel Burning Equipment							
1	S-1	Cleaver Brooks boiler Model # D-34, Unit # W-3371 Constructed November 1985	18 Million BTU/hr	--	--	--	6/10/11 permit, as amended 11/18/13 , and 2/3/16
2	S-2	Cleaver Brooks boiler Model # D-34, Unit # W-3372 Constructed November 1985	18 Million BTU/hr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
3	S-3	Cleaver Brooks boiler Model # D-34, Unit # W-3373 Constructed November 1985	18 Million BTU/hr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
4	S-4	Nebraska boiler Model # NS-E-64 Constructed January 2002	97 Million BTU/hr	Low NO _x Burners	PC-5	NO _x	6/10/11 permit, as amended 11/18/13, and 2/3/16
5	S-5	Nebraska Boiler Model #NS-E-64 Constructed January 2006	97 Million BTU/hr	Low NO _x Burners Flue Gas Recirculation	100SSAPC-6	NO _x	6/10/11 permit, as amended 11/18/13, and 2/3/16
40	--	Propane-fired emergency generator	0.10 Million BTU/hr	--	--	--	--
Brewing							
10	S-10	Grain Handling System	133,000 tons malt/yr	Fabric Filters	PC-10-A PC-10-B PC-10-C	PM/PM-10	6/10/11 permit, as amended 11/18/13, and 2/3/16
20	S-20	Brewing Process	10 Million barrels/yr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
23	S-23	Fermenting Process	10 Million barrels/yr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
24	S-24	Maturation (Aging) Process	10 Million barrels/yr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit
25	S-25-1 through S-25-5	Conditioning Process	10 Million barrels/yr	Closed vessels under CO ₂ gas pressure during storage and cleaning.	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
26	S-26-1 S-26-2 S-26-3	Byproducts Handling System	Waste Beer: 1,740,000 gal/yr Yeast: 10,250,859 gal/yr Waste yeast: 12,122,021 gal/yr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
38	--	CO ₂ Recovery System	10 Million barrels/yr	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
Packaging							
27	S-P-1 through S-P-9	Packaging Fillers Process, consisting of: Aluminum Bottle Line (Bottle Line 5), Bottle Lines 3 and 4; Can Lines 1, 2, and 3; and Centramatic Keg Line	17,855,564 barrels/yr	Beer Dispensing Technology and Beer Spillage Management	--	VOC	6/10/11 permit, as amended 11/18/13, and 2/3/16
29	--	Product Marking	--	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
30	--	Carton Assembly	--	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
31	--	Label Application	--	--	--	--	6/10/11 permit, as amended 11/18/13, and 2/3/16
32	S-32	Packaging Defill Process	1,182,600 lb-aluminum/yr 19,272,000 lb-glass/yr	Water Spraying System	PC-32	VOC	6/10/11 permit, as amended 11/18/13, and 2/3/16
Wastewater Treatment							
16	S-16	Lime-handling System	14,100 tons/yr	Bin vent filter	PC-16	PM/PM-10	6/10/11 permit, as amended 11/18/13,

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit
							and 2/3/16
33	S-33-1 through S-33-11	Wastewater Treatment Plant	4,500,000 gal/day	VAREC Biogas Flare and/or Two Cleaver-Brooks Biogas Boilers	PC-33 (VAREC) Units 34 and 35 (Boilers)	VOC and H ₂ S	6/10/11 permit, as amended 11/18/13, and 2/3/16
CHP-1		One combined heat and power (CHP) biogas-fired stationary reciprocating engine generator plant, General Electric Model JMC 420 GS-B.L.	12.349 MMBTU/hr, 1426 KW	-	-	NO _x	6/10/11 permit, as amended 11/18/13, and 2/3/16
--		Biogas Flare	11.9 Million BTU/hr	--	--	VOC	6/10/11 permit, as amended 11/18/13, and 2/3/16

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Fuel Burning Equipment Requirements – Unit IDs 1, 2, 3, 4, and 5

1. **Limitations (Unit ID 5)** – Nitrogen oxide emissions from the 97 Million BTU/hr boiler (Unit ID 5) shall be controlled by the use of low NO_x burners and flue gas recirculation or Department of Environmental Quality (DEQ)-approved equivalent methods.
(9 VAC 5-80-110 and Condition 2 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
2. **Limitations (Unit ID 4)** – Nitrogen oxide emissions from the 97 Million BTU/hr boiler (Unit ID 4) shall be controlled by the use of low NO_x burners.
(9 VAC 5-80-110 and Condition 1 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
3. **Limitations (Unit IDs 1, 2, 3, 4, and 5)** – The approved fuel for the five process steam boilers (Unit IDs 1, 2, 3, 4, and 5) is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 19 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
4. **Limitations (Unit IDs 4 and 5)** – Visible emissions from each of the 97 Million BTU/hr boiler stacks (Unit IDs 4 and 5) shall not exceed five percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity.
(9 VAC 5-50-80, 9 VAC 5-80-110, and Condition 25 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
5. **Limitations (Unit IDs 1, 2, and 3)** – Visible emissions from each of the 18 Million BTU/hr boiler stacks (Unit IDs 1, 2, and 3) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)
6. **Limitations (Unit IDs 1, 2, 3, 4, and 5)** – Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all relevant boiler equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at a minimum. The permittee shall maintain records of the required training including a statement of the time, place, and nature of the training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at a minimum.
(9 VAC 5-80-110 and Condition 56 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
7. **Limitations (Unit ID 4)** – Emissions from the operation of the 97 Million BTU/hr boiler (Unit ID 4) shall not exceed the limits specified below:

Pollutant	lbs/Million BTU
PM	0.0075
PM-10	0.0075
Sulfur Dioxide	0.0006
Nitrogen Oxides* (as NO ₂)	0.0900
Carbon Monoxide	0.0824
Volatile Organic Compounds	0.0054

*30-day rolling average

Compliance with these limits may be determined as stated in Conditions 2, 3, and 17.
 (9 VAC 5-80-110 and Condition 22 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

8. **Limitations (Unit ID 5)** – Emissions from the operation of the 97 Million BTU/hr boiler (Unit ID 5) shall not exceed the limits specified below:

Pollutant	lbs/Million BTU
PM	0.0075
PM-10	0.0075
Sulfur Dioxide	0.0006
Nitrogen Oxides* (as NO ₂)	0.0400
Carbon Monoxide	0.0824
Volatile Organic Compounds	0.0054

*30-day rolling average

Compliance with these limits may be determined as stated in Conditions 1, 3, and 17.
(9 VAC 5-80-110 and Condition 23 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

9. **Limitations (Unit IDs 4 and 5)** – Emissions from the operation of the 97 Million BTU/hr boilers (Unit IDs 4 and 5), combined, shall not exceed the limits specified below:

PM	6.37 tons/yr
PM-10	6.37 tons/yr
Sulfur Dioxide	0.51 tons/yr
Nitrogen Oxides (as NO ₂)	59.81 tons/yr
Carbon Monoxide	70.02 tons/yr
Volatile Organic Compounds	4.59 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 24 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

10. **Limitations (Unit IDs 1, 2, and 3)** – Emissions from the operation of each of the 18 Million BTU/hr boilers (Unit IDs 1, 2, and 3) shall not exceed the limits specified below:

Pollutant	lbs/Million BTU (per boiler)
PM	0.0075
PM-10	0.0075
Nitrogen Oxides (as NO ₂)	0.0980
Carbon Monoxide	0.0824
Volatile Organic Compounds	0.0054

Compliance with these limits may be determined as stated in Condition 3.
(9 VAC 5-80-110 and Condition 20 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

11. **Limitations (Unit IDs 1, 2, and 3)** – Total emissions from the operation of the 18 Million BTU/hr boilers (Unit IDs 1, 2, and 3), combined, shall not exceed the limits specified below:

PM	1.77 tons/yr
PM-10	1.77 tons/yr
Nitrogen Oxides (as NO ₂)	23.18 tons/yr
Carbon Monoxide	19.49 tons/yr
Volatile Organic Compounds	1.28 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 21 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

12. **Limitations (Unit IDs 1, 2, and 3)** – Each of the three 18 Million BTU/hr boilers (Unit IDs 1, 2, and 3) shall be fitted with devices to continuously measure and record the fuel gas flow.

(9 VAC 5-80-110 and Condition 14 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

13. **Limitations (Unit IDs 4 and 5)** – Each of the two 97 Million BTU/hr boilers (Unit IDs 4 and 5) shall be fitted with devices to continuously measure and record the fuel gas flow.

(9 VAC 5-80-110 and Condition 15 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

14. **Monitoring (CEMS - Unit IDs 4 and 5)** – Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the concentration of nitrogen oxides (NO_x) emitted by the two 97 Million BTU/hr boilers (Unit IDs 4 and 5). Nitrogen oxide monitors shall be co-located with a CO₂ or O₂ diluent monitor. The monitors shall meet the certification, operation, and maintenance requirements of 40 CFR 60.13 and the quality assurance requirements of 40 CFR, Part 60, Appendix F, or a DEQ-approved equivalent method. A valid data point must be obtained every 15 minutes from each of the boilers being monitored in accordance with 40 CFR 60.13 (e)(2).

(9 VAC 5-50-40, 9 VAC 5-80-110, and Condition 46 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

15. **Reporting (CEMS Annual RATA Requirement)** – Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B. One copy of the performance evaluation report shall be submitted to the DEQ within 45 days of the evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.

(9 VAC 5-50-40, 9 VAC 5-80-110, and Condition 47 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

16. **Monitoring (CEMS - Unit IDs 4 and 5)** – All continuous monitoring required by this permit shall meet minimum data availability of greater than or equal to 90 percent of the individual boiler operating hours of each of the two 97 Million BTU/hr boilers (Unit IDs 4 and 5) monitored on a calendar quarter basis. The monitoring shall meet the certification, operation, and maintenance requirements of 40 CFR 60.13 and the quality assurance requirements of 40 CFR, Part 60, Appendix F, or a DEQ-approved equivalent method. (9 VAC 5-50-40, 9 VAC 5-80-110, and Condition 48 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
17. **Monitoring (CEMS - Unit IDs 4 and 5)** – The continuous monitoring data generated by all continuous emission monitoring systems shall be used to determine compliance with the emission limitations in Conditions 7, 8, and 9; compliance shall be demonstrated on a calendar quarter basis. The permittee shall install and maintain instrumentation necessary to determine compliance. This instrumentation should indicate and record the following for the two 97 Million BTU/hr boilers (Unit IDs 4 and 5), at minimum:
- a. the hourly heat input of each boiler in Million BTU/hr;
 - b. the total hourly heat input of both boilers in Million BTU/hr; and
 - c. the 30-day rolling average NO_x emission rate in lbs/Million BTU and lb/hr, on a daily basis for each boiler.
- (9 VAC 5-80-110 and Condition 49 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
18. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- a. The DEQ-approved, pollutant-specific emission factors and equations used to demonstrate compliance with Conditions 7, 8, 9, 10, and 11.
 - b. Monthly and annual emissions from the 97 MMBtu/hr boilers (Unit IDs 4 and 5) to show compliance with Condition 9.
 - c. Monthly and annual emissions from the 18 MMBtu/hr boilers (Unit IDs 1, 2 and 3) to show compliance with Condition 11.
 - d. Continuous monitoring data required in Conditions 16 and 17.
 - e. Results of all stack tests, visible emission evaluations, and performance evaluations.
 - f. Records of maintenance, operating procedures, and training as required in Condition 6.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(40 CFR 60.48c(g), 40 CFR 60.48c(i), 9 VAC 5-80-110, and Condition 51 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

19. **Monitoring (Unit IDs 4 and 5)** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Test ports will be provided on each of the 97 Million BTU/hr (Unit IDs 4 and 5) stacks.
(9 VAC 5-50-30 F, 9 VAC 5-80-110, and Condition 27 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
20. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
21. **Reporting** – The permittee shall submit reports to the DEQ within 30 days after the end of each calendar quarter for the two 97 Million Btu/hr boilers (Unit IDs 4 and 5). Each quarterly report shall contain, at a minimum, the following:
 - a. The source operating time, in hours;
 - b. For each boiler operating day, the information required under 40 CFR 60.49b (g)(1), (g)(2), and (g)(3);
 - c. The quality assurance information required under 40 CFR 60.49b (g)(10);
 - d. The dates and times of all outages of the NO_x continuous monitoring system, with reasons for the outages, and corrective actions taken; and
 - e. The calculated NO_x emission rates in lb/Million Btu.

One copy of the quarterly report shall be sent to the EPA at the following address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 and Condition 50 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

Brewery Requirements – Unit IDs 10, 20, 23-26, and 38

22. **Limitations** – The annual throughput of barley malt shall not exceed 133,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 23 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

23. **Limitations (Unit ID 10)** – Particulate matter (PM and PM-10) emissions from the operation of the following equipment shall be controlled by fabric filters:

- barley malt receiving system including grain receiving by railcar (choke unloading) and headhouse and internal handling (Unit ID 10); and
- barley malt storage, screening, and milling system (Unit ID 10).

(9 VAC 5-80-110 and Condition 3 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

24. **Limitations (Unit ID 10)** – PM and PM-10 emissions from the operation of the following equipment shall not exceed the limits specified below:

Equipment	Pollutant	lbs/hr	tons/yr
Barley Malt Receiving System – Grain Receiving by Railcar and Headhouse and Internal Handling - Unit ID 10	PM	1.3	1.1
	PM-10	0.3	0.3
Barley Malt Storage, Screening, and Milling System - Unit ID 10	PM	0.3	0.6
	PM-10	0.2	0.5

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 29 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

25. **Limitations** – Visible emissions from all fabric filters, except as indicated in Condition 29, shall not exceed five percent opacity as determined by 40 CFR 60, Appendix A, Method 9.

(9 VAC 5-80-110 and Condition 33 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

26. **Limitations (Unit ID 25)** – VOC emissions from conditioning (Unit ID 25) shall be controlled by maintaining closed vessels under CO₂ gas pressure during storage and cleaning activities.

(9 VAC 5-80-110 and Condition 5 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

27. **Limitations (Unit IDs 20, 23, 24, 25, 26, and 38)** – VOC emissions from the operation of the equipment listed below shall not exceed the following limits:

Equipment	tons/month	tons/yr
Brewing Process (Unit ID 20)	0.73	5.12
Fermentation (Unit ID 23)	4.18	4.48
Maturation Process (Unit ID 24)	0.24	2.85
Conditioning Process (Unit ID 25)	0.34	3.73
By-Products Handling System (Unit ID 26)	0.12	1.46
CO ₂ Recovery System (Unit ID 38)	0.01	0.13

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 31 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

28. **Limitations (Unit ID 20)** – PM and PM-10 emissions from the operation of the brewing process (Unit ID 20) shall not exceed 0.3 tons per month and 2.1 tons per year. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 32 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

29. **Limitations (Unit IDs 20, 23, 24, 25, and 26)** – Visible emissions from the following equipment shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity, as determined by 40 CFR 60, Appendix A, Method 9:

- Brewing Process (Unit ID 20);
- Fermentation (Unit ID 23);
- Maturation Process (Unit ID 24);
- Conditioning process (Unit ID 25); and,
- By-products Handling System (Unit ID 26).

(9 VAC 5-50-80 and 9 VAC 5-80-110)

30. **Monitoring (Unit ID 10)** – Each fabric filter required in Condition 23 shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendation. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating. A log shall

be maintained in paper copy or electronic format to record the pressure drop across each fabric filter once a month.

(9 VAC 5-80-110 and Condition 20 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

31. **Compliance Assurance Monitoring (CAM)** – The permittee shall monitor, operate, calibrate, and maintain Unit ID 10, Grain Handling System, as specified in the Fabric Filter CAM Plan (Attachment A) for each fabric filter in Unit ID 10.
(9 VAC 5-80-110 and 40 CFR 64.6(c))
32. **Compliance Assurance Monitoring (CAM)** - The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9 VAC 5-80-110 E and 40 CFR 64.6 (c))
33. **Compliance Assurance Monitoring (CAM)** - At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9 VAC 5-80-110 E and 40 CFR 64.7 (b))
34. **Compliance Assurance Monitoring (CAM)** - Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals as outlined in the CAM plan) at all times that Unit ID 10 is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7 (c))
35. **Compliance Assurance Monitoring (CAM)** - Upon detecting an excursion or exceedance, the permittee shall restore operation of Unit ID 10 (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7 (d)(1))

36. **Compliance Assurance Monitoring (CAM)** - Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))
37. **Compliance Assurance Monitoring (CAM)** - If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the DEQ and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E and 40 CFR 64.7(e))
38. **Compliance Assurance Monitoring (CAM)** – If the number of exceedances or excursions exceeds two in a two-week period per each control device or, if monitoring has been reduced to monthly in accordance with the CAM plan, then one excursion or exceedance during the monthly monitoring, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
- a. Improved preventative maintenance practices;
 - b. Process operation changes;
 - c. Appropriate improvements to control methods;
 - d. Other steps appropriate to correct control performance; and
 - e. More frequent or improved monitoring.
- (9 VAC 5-80-110 and 40 CFR 64.8(a) and (b))
39. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- a. Monthly and annual throughput of barley malt (in tons) (Unit ID 10), calculated monthly as required by Condition 22.

- b. Monthly and annual throughput of waste beer through waste beer tanks (by volume) (Unit ID 26). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- c. Monthly and annual total of CO₂ consumed (by weight) during conditioning activities (Unit ID 25). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- d. The annual total of CO₂ recovery system outage (by time), calculated monthly as the sum of each consecutive 12-month period.
- e. Monthly and annual PM and PM-10 emissions (in tons) from the grain handling system (Unit ID 10), calculated monthly as required by Condition 24.
- f. Monthly and annual PM and PM-10 emissions (in tons) from the operation of the brewing process (Unit ID 20), calculated monthly as required by Condition 28.
- g. Differential pressure drop logs required in Condition 30.
- h. Inspection records as required by the Fabric Filter Compliance Assurance Monitoring (CAM) Plan (Attachment A) in Condition 31. These records shall include, but are not limited to:
 - (1) Visible emissions observation records for each fabric filter including date, time, and name of qualified person performing each observation;
 - (2) Method 9 Visible Emissions Evaluation results;
 - (3) Monthly and annual inspection logs, which include bag filter condition;
 - (4) Pressure drop records when necessary; and
 - (5) Records of all excursions, including date, time and corrective actions taken.
- i. The DEQ-approved VOC emission factors and equations used to demonstrate compliance with Condition 27.
- j. Monthly and annual VOC emissions (in tons) from the brewing process (Unit ID 20), fermentation (Unit ID 23), the maturation process (Unit ID 24), the conditioning process (Unit ID 25), the by-products handling system (Unit ID 26), and the CO₂ recovery system (Unit ID 38), calculated monthly as required by Condition 27.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 51 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

40. **Compliance Assurance Monitoring (CAM) Recordkeeping** – The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 E and 40 CFR 64.9(b))
41. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Sampling ports, safe sampling platforms, and access at appropriate locations shall be provided when requested.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
42. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
43. **Compliance Assurance Monitoring (CAM) Reporting** - the permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by Condition 94 of this permit to the DEQ. Such reports shall include at a minimum:
- a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable; and
 - c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- (9 VAC 5-80-110 F and 40 CFR 64.9(a))

Packaging Requirements – Unit IDs 27, 29, 30, 31 and 32

44. **Limitations** – The production of beer through packaging shall not exceed 10 million barrels per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 30 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
45. **Limitations (Unit ID 27)** –Volatile organic compound (VOC) emissions from the Packaging Fillers Process (Unit ID 27) shall be controlled by beer dispensing technology and beer spillage management practices. The beer dispensing technology and beer spillage management shall include fillers which are operated to minimize overfill of containers. The packaging operation shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 6 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
46. **Limitations (Unit ID 32)** –VOC emissions from the defill operation (Unit ID 32) shall be controlled by the use of a water spraying system. The water spraying system shall be maintained by the permittee such that it is in proper working order at all times and shall be in operation when the bottles and cans are crushed.
(9 VAC 5-80-110 and Condition 9 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
47. **Limitations (Unit ID 29)** –VOC emissions from product marking (Unit ID 29) shall be controlled by the use of the approved low-VOC content product marking inks and makeup cleaners. As new inks and makeup cleaners become available, the permittee shall evaluate the feasibility of their use. The product marking operations shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 7 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
48. **Limitations (Unit IDs 30 and 31)** –VOC emissions from carton assembly (Unit ID 30) and bottle label application (Unit ID 31) shall be controlled by the use of ultra low-solvent based adhesives (containing less than 0.01 percent by weight VOC).
(9 VAC 5-80-110 and Condition 8 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
49. **Limitations (Unit IDs 27, 29 – 32)** –VOC emissions from the operation of the equipment listed below shall not exceed the following limits:

Equipment	tons/month	tons/yr
Packaging Fillers Process (Unit 27) , consisting of: -Bottle Lines 3, 4, and 5; -Can Lines 1, 2, and 3; and -Centramatic Keg Line	3.94	47.3
Product Marking (Unit ID 29)	2.42	11.00
Carton Assembly (Unit ID 30)	0.0025	0.03

Bottle Label Application (Unit ID 31)	0.0025	0.03
Defilling (Unit ID 32)	2.50	16.00

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 31 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

50. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- Monthly and annual volumes of cans filled (Unit ID 27). Annual volumes shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual volumes of bottles filled (Unit ID 27). Annual volumes shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual volumes of kegs filled (Unit ID 27). Annual volumes shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual volumes of beer packaged (in 1000 barrels) (Unit ID 27). Annual volumes shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual total of bottle glass recovered from bottle defill crushing operations (by weight) (Unit ID 32). Annual totals shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual total of can aluminum recovered from can defill densifying operations (by weight) (Unit ID 32). Annual totals shall be calculated monthly as the sum of each consecutive 12-month period.
 - Monthly and annual volumes of product marking ink used (Unit ID 29). Annual volumes shall be calculated monthly as the sum of each consecutive 12-month period.
 - The DEQ-approved VOC emission factors and equations used to demonstrate compliance with Condition 49.
 - Monthly and annual VOC emissions (in tons) from packaging fillers process (Unit ID 27), product marking (Unit ID 29), carton assembly (Unit ID 30), bottle label application (Unit ID 31), and defilling (Unit ID 32), calculated monthly as required by Condition 49.

j. Certified Material Safety Data Sheets (MSDS) showing VOC content (by weight) for each conveyor line lubricant, product marking ink, carton assembly glue, and label application glue.

k. Records of ink and makeup cleaner evaluations, as required in Condition 47.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 54 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

51. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate test method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

Wastewater Treatment Requirements – Unit IDs 16, 33, and CHP-1

52. **Limitations (Unit ID CHP-1)** – The approved fuel for the wastewater treatment biogas flare, and the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) is primary digester gas. The approved fuel for the flare pilot flame is propane. The flare, and/or Unit ID CHP-1, may only be used for the combustion of digester gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 35 of 6/10/2011 Permit as amended 11/18/13 and 2/3/16)
53. **Limitations (Unit ID CHP-1)** – NO_x emissions from the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall be controlled by a low NO_x engine.
(9 VAC 5-80-110 and Condition 12 of 6/10/2011 Permit as amended 11/18/13 and 2/3/16)
54. **Limitations (Unit ID CHP-1)** – Emissions from the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall be controlled by proper operation and maintenance. Operators shall be trained in the proper operation of this equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at a minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for Unit ID CHP-1. These procedures shall be based on the manufacturer's recommendations, at a minimum.
(9 VAC 5-80-110 and Condition 13 of 6/10/2011 Permit as amended 11/18/13 and 2/3/16)
55. **Limitations (Unit ID CHP-1)** – The CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall be equipped with a device to continuously measure and record the biogas flow to the unit.
(9 VAC 5-80-110 and Condition 17 of 6/10/2011 Permit as amended 11/18/13 and 2/3/16)
56. **Limitations (Unit ID CHP-1)** – Emissions from the operation of the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall not exceed the limits specified below. The permittee may choose to comply with the emission standards in units of g/HP-hr or ppmvd at 15% O₂.

	<u>g/HP-hr</u>	<u>ppmvd at 15% O₂</u>
VOC	1.0	80
NO _x	2.0	150
CO	5.0	610

Compliance with these emission limits shall be determined by performing stack testing as described in Condition 76.

(9 VAC 5-80-110, Condition 39 of 6/10/11 Permit as amended 11/18/13 and 2/3/16, and 40 CFR 60.4233(e))

57. **Limitations (Unit ID CHP-1)** – The permittee must operate and maintain Unit ID CHP-1 in such a way that achieves the emission standards as required in Condition 56 over the entire life of the engine.
(9 VAC 5-80-110 and 40 CFR 60.4234)

58. **Limitations (Unit ID CHP-1)** – Emissions from the operation of the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall not exceed the limits specified below:

PM	0.39 lbs/hr	1.7 tons/yr
PM-10	0.39 lbs/hr	1.7 tons/yr
SO ₂	0.96 lb/hr	4.2 tons/yr
NO _x	2.60 lbs/hr	11.4 tons/yr
CO	13.0 lbs/hr	56.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 52, 53, and 54.

(9 VAC 5-80-110 and Condition 40 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

59. **Limitations (Unit ID CHP-1)** – Except where this permit is more restrictive than the applicable requirement, the CHP stationary reciprocating engine generator (Unit ID CHP-1) shall be operated in compliance with the requirements of 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines).
(9 VAC 5-80-110 and 40 CFR 63 Subpart ZZZZ)

60. **Limitations (Unit ID CHP-1)** – Except where this permit is more restrictive than the applicable requirement, the CHP stationary reciprocating engine generator (Unit ID CHP-1) shall be operated in compliance with the requirements of 40 CFR 60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines).
(9 VAC 5-80-110 and 40 CFR 60 Subpart JJJJ)

61. **Limitations (Unit ID CHP-1)** – The Unit ID CHP-1 must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ.
(9 VAC 5-80-110 and 40 CFR 63.6590))

62. **Limitations (Unit ID CHP-1)** – As the owner of a non-certified engine, the permittee shall demonstrate compliance with the emission standards specified in Condition 56 according to the requirements specified in Condition 76, as applicable. In addition, the permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent

practicable, maintain and operate Unit ID CHP-1 in a manner consistent with good air pollution control practice for minimizing emissions.
(9 VAC 5-80-110 and 40 CFR 60.4243(b))

63. **Limitations (Unit ID CHP-1)** – Visible emissions from the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by 40 CFR 60, Appendix A, Method 9. This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 41 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
64. **Testing (Unit ID CHP-1)** – Upon request by the DEQ, the permittee shall conduct a visible emissions evaluation from the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) exhaust to demonstrate compliance with the visible emission limit in Condition 63. The details of the test shall be arranged with the DEQ.
(9 VAC 5-80-110, 9 VAC 5-30-30 G, and Condition 45 of 6/10/11 Permit as amended 11/18/13 and 2/3/16).
65. **Limitations (Unit ID 33)** – The collection system for the wastewater treatment facility and influent structures must be covered to prevent escape of volatile organic compound emissions.
(9 VAC 5-80-110 and Condition 10 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
66. **Limitations (Unit IDs 33, and CHP-1)** – Volatile organic compound (VOC) emissions from the wastewater treatment facility (Unit ID 33) shall be controlled by an advanced wastewater treatment system. The facility shall not exceed VOC emission limits specified in Condition 67 and must use the biogas flare (PCD ID PC-33) and the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) for the combustion of biogas. The advanced wastewater treatment system shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 11 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
67. **Limitations (Unit ID 33)** – VOC emissions from the operation of the wastewater collection/treatment and sludge handling systems shall not exceed 0.88 tons per month and 4.00 tons per year. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 38 of 6/10/2011 Permit as amended 11/18/13 and 2/3/16)
68. **Limitations (Unit ID 16)** – The annual throughput of lime (Unit ID 16) shall not exceed 14,100 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 36 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

69. **Limitations (Unit ID 16)** – Particulate matter emissions (PM and PM-10) from the lime storage and handling system (Unit ID 16) shall be controlled by a bin vent filter.
(9 VAC 5-80-110 and Condition 4 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

70. **Limitations (Unit ID 16)** – Particulate matter emissions (PM and PM-10) from the lime storage and handling system (Unit ID 16) shall not exceed the limits specified below:

PM	0.13 tons/yr
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PM-10	0.13 tons/yr
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Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 37 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

71. **Limitations (Unit ID 16)** – Visible emissions from the bin vent filter shall not exceed five percent opacity as determined by 40 CFR 60, Appendix A, Method 9.

(9 VAC 5-80-110 and Condition 42 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

72. **Monitoring and Recordkeeping (Unit IDs 34 and 35)** – The biogas flare (PCD ID PC-33) shall be equipped with a device to ensure continuous operation of the biogas flare. The biogas flare shall be equipped with an automatic shutoff device and re-ignition controls. A log shall be maintained to record any periods when the biogas flare is non-operational.

(9 VAC 5-80-110 and Condition 16 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

73. **Recordkeeping (Unit ID 16)** – The bin vent filter required in Condition 69 shall be equipped with a device to continuously measure the differential pressure drop across the filter. Each device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendation. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the bin vent filter is operating. A log shall be maintained in paper copy or electronic format to record the pressure drop across the bin vent filter.

(9 VAC 5-80-110 and Condition 20 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

74. **Monitoring (Unit ID 16)** – The permittee shall conduct visible emission inspections on the bin vent filter stack (Unit ID 16) in accordance with the following procedures and frequencies:

- a. At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection, visible emissions are observed, timely corrective action shall be taken such that the stack resumes operation with no visible emissions, or a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9 to verify that visible emissions are below the limit in Condition 71. If visible emissions exceed the limit in Condition 71, then timely corrective actions

shall be taken such that stack resumes operation with visible emissions not exceeding the limit in Condition 71.

- b. If the permittee chooses to conduct a VEE, each test shall consist of 10 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the test shall be arranged with the DEQ. One copy of the test results shall be submitted to DEQ within 60 days after test completion, and shall conform to the test report format enclosed with this permit.
- c. All visible emissions inspections shall be performed when the equipment is operating.
- d. If visible emissions inspections conducted during 12-consecutive weeks show no visible emissions, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

(9 VAC 5-80-110 and Condition 44 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

75. **Recordkeeping** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:
- a. Records to show compliance with the required operator training, operating procedures, and maintenance of the Unit ID CHP-1, as required by Condition 54.
 - b. Records to show compliance with the process emission limits as required in Condition 56.
 - c. Monthly and annual emissions (in tons) from the CHP stationary reciprocating engine generator plant (Unit ID CHP-1) to show compliance with the emission limits in Condition 58.
 - d. Monthly and annual VOC emissions (in tons) from the wastewater collection/treatment and sludge handling systems (Unit ID 33), calculated monthly as required by Condition 67.
 - e. Monthly and annual throughput of lime (in tons) (Unit ID 16), calculated monthly as required by Condition 68.
 - f. Monthly and annual particulate emissions (in tons) from the lime storage and handling system (Unit ID 16), calculated monthly as required by Condition 70.
 - g. A log shall be maintained to record any periods when the biogas flare is non-operational, as required by Condition 72.

- h. Differential pressure drop logs required in Condition 73.
- i. Records of all observations, VEE results, and corrective actions for Unit ID 16, as required in Condition 74.
- j. Records of stack testing results for Unit ID CHP-1, as required by Condition 76.
- k. Monthly and annual throughput of digester gas (in million cubic feet) for the CHP stationary reciprocating engine generator plant (Unit ID CHP-1). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- l. All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification.
- m. Documentation that the non-certified engine (Unit CHP-1) meets the engine emission standards of 40 CFR Subpart JJJJ.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110, 40 CFR 60.4245(a) and Condition 51 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

76. **Testing (Unit ID CHP-1)** – Within three years of the initial performance test conducted on April 22, 2014, or every 8,760 hours of operation of the Unit CHP-1, whichever comes first, subsequent performance testing shall be conducted for NO_x, CO, and VOC using the procedures in Condition 77 and methods specified in Table 2 of 40 CFR 60, Subpart JJJJ.

The permittee shall submit a test protocol at least 30 days prior to testing. Testing shall conform to the test report format enclosed with this permit. One copy of the test results shall be submitted to the DEQ within 60 days after completion of the testing. Other details of the test shall be arranged with the DEQ.

One copy of the performance test shall be submitted to the U.S. Environmental Protection Agency at the following address:

Associate Director
Office of Air Enforcement (3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-80-110 and 40 CFR 60.4243(b)(ii))

77. **Testing (Unit ID CHP-1)** – The permittee shall follow the procedures outlined below when conducting performance tests on Unit ID CHP-1 to show compliance with the emissions limits in Condition 56:

- a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to 40 CFR 60, Subpart JJJJ.
- b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine solely to conduct a performance test. However, the permittee must conduct the performance test immediately upon startup of the engine.
- c. You must conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- d. To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1:

$$ER = \frac{C_d \times 1.912E^{-3} \times Q \times T}{HP - hr}$$

.....Equation 1

Where:

ER	= Emission rate of NO _x in g/HP-hr.
C _d	= Measured NO _x concentration in parts per million by volume (ppmv).
1.912E ⁻³	= Conversion constant for ppm NO _x to grams per standard cubic meter at 20 degrees Celsius.
Q	= Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T	= Time of test run, in hours.
HP-hr	= Brake work of the engine, horsepower-hour (HP-hr)

- e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2:

$$ER = \frac{C_d \times 1.164E^{-3} \times Q \times T}{HP - hr}$$

.....Equation 2

Where:

ER	= Emission rate of CO in g/HP-hr.
C _d	= Measured CO concentration in ppmv.
1.164E ⁻³	= Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q	= Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T	= Time of test run, in hours.
HP-hr	= Brake work of the engine, in HP-hr.

- f. For purposes of this permit condition, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3:

$$ER = \frac{C_d \times 1.833E^{-3} \times Q \times T}{HP - hr}$$

.....Equation 3

Where:

ER	= Emission rate of VOC in g/HP-hr.
C _d	= VOC concentration measured as propane in ppmv.
1.833E ⁻³	= Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.
Q	= Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T	= Time of test run, in hours.
HP-hr	= Brake work of the engine, in HP-hr

(9 VAC 5-80-110 and 40 CFR 60.4244)

78. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate test method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)
79. **Reporting (Unit ID CHP-1)** – Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission

standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:

- a. Name and address of the owner or operator;
- b. The address of the affected source;
- c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- d. Emission control equipment; and
- e. Fuel used.

(9 VAC 5-80-110 and 40 CFR 60.4245(c))

Facility Wide Conditions

80. **Limitations** – If the existing or permitted Molson Coors – Shenandoah Brewery facility is modified by a relaxation in any enforceable limitation on the capacity or emissions of the source which would have made this facility subject to the requirements of 40 CFR 52.21 on May 2, 1997, then the requirements of 40 CFR 52.21 shall apply to the facility as though construction had not yet commenced on the source or modification.
(9 VAC 5-80-110 and Condition 34 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
81. **Recordkeeping** – In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.
- These records shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 56 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)
82. **Recordkeeping** – The permittee shall have available written operating procedures for all air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedure. The procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including the names of trainees, date of training, and nature of training. These records shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(Condition 13 of NSR, (9 VAC 5-80-110 and Condition 56 of 6/10/11 Permit as amended 11/18/13 and 2/3/16)

Insignificant Emission Units

83. **Insignificant Emission Units** – The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
19	Diesel Fuel Storage	9 VAC 5-80-720 A	--	--
22	Can 3 Pasteurizer	9 VAC 5-80-720 B	VOC	--
23	Bottle 4 Pasteurizers	9 VAC 5-80-720 B	VOC	--
24	Can 1 in-line densifiers	9 VAC 5-80-720 B	VOC	--
25	Can 2 in-line densifiers	9 VAC 5-80-720 B	VOC	--
26	Can 3 in-line densifiers	9 VAC 5-80-720 B	VOC	--
31	Rail and Truck Loading	9 VAC 5-80-720 A	--	--
34	Biogas-fired boiler	9 VAC 5-80-720 B	PM-10, VOC	--
35	Biogas-fired boiler	9 VAC 5-80-720 B	PM-10, VOC	--
36	Wet Spent Grain Storage and Loadout	9 VAC 5-80-720 B	VOC	--
37	Adjuncts Handling	9 VAC 5-80-720 B	PM-10	--
51	Yeast Propagation	9 VAC 5-80-720 B	VOC, SO ₂	--
52	Cooling Towers	9 VAC 5-80-720 A	--	--
53	Deozonation Towers	9 VAC 5-80-720 B	VOC (ozone)	--
54	Packaging Traymaker	9 VAC 5-80-720 B	PM-10, VOC	--
55	CIP (Clean-in-Place) System	9 VAC 5-80-720 B	VOC	--
56	Hops Staging Room	9 VAC 5-80-720 B	VOC	--
57	Inline Defill Units – Bottle Line 3	9 VAC 5-80-720 B	VOC	--
58	Warehouse Keg Defill	9 VAC 5-80-720 B	VOC	--
59	Keg Line Defill	9 VAC 5-80-720 B	VOC	--
60	Five-liter Keg Can Filling	9 VAC 5-80-720 B	VOC	--
61	Bottle Warmer	9 VAC 5-80-720 B	VOC	--
62	Flash Pasteurization	9 VAC 5-80-720 B	VOC	--
63	Central Vacuum System	9 VAC 5-80-720 B	PM, PM-10, VOC	--
64	Green Beer Centrifuges	9 VAC 5-80-720 B	VOC	--
65	Emergency Malt Loadout	9 VAC 5-80-720 B	PM, PM-10	--
--	General Ventilation	9 VAC 5-80-720 A	--	--
--	Portable Heaters	9 VAC 5-80-720 A	--	--
--	Space Heaters	9 VAC 5-80-720 A	--	--
--	Office Activities	9 VAC 5-80-720 A	--	--
--	Janitorial Cleaning/Maintenance	9 VAC 5-80-720 A	--	--
--	Architectural Repair Activities	9 VAC 5-80-720 A	--	--
--	Grounds Maintenance	9 VAC 5-80-720 A	--	--
--	Locker Room Ventilation	9 VAC 5-80-720 A	--	--
--	Copier Activities	9 VAC 5-80-720 A	--	--

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
--	Blueprint Duplication	9 VAC 5-80-720 A	--	--
--	Cafeteria Activities	9 VAC 5-80-720 A	--	--
--	Safety Devices	9 VAC 5-80-720 A	--	--
--	Air Contaminate Test Equipment	9 VAC 5-80-720 A	--	--
--	Welding, Soldering Equipment	9 VAC 5-80-720 A	--	--
--	Forklift, Truck Engines	9 VAC 5-80-720 A	--	--
--	Firefighting Equipment and Training	9 VAC 5-80-720 A	--	--
--	Quality Control Lab Activities	9 VAC 5-80-720 A	--	--
--	Air Compressors	9 VAC 5-80-720 A	--	--
--	Dumpster	9 VAC 5-80-720 A	--	--
--	Air Dryers for Instrument Air	9 VAC 5-80-720 A	--	--
--	Laboratory Activities	9 VAC 5-80-720 A	--	--
--	Sampling Activities	9 VAC 5-80-720 A	--	--
--	Solvent Storage	9 VAC 5-80-720 A	--	--
--	Cooling Ponds	9 VAC 5-80-720 A	--	--
--	Maintenance Activities	9 VAC 5-80-720 A	--	--
--	Spill Collection Tanks	9 VAC 5-80-720 A	--	--
--	Steam Vents	9 VAC 5-80-720 A	--	--
--	Boiler Treatment Operations	9 VAC 5-80-720 A	--	--
--	Nonhazardous Boiler Cleaning Activities	9 VAC 5-80-720 A	--	--
--	Portable Containers	9 VAC 5-80-720 A	--	--
--	Vents or Stacks for Sewer Lines	9 VAC 5-80-720 A	--	--
--	Purging of Natural Gas Lines	9 VAC 5-80-720 A	--	--
--	Sealed Batteries	9 VAC 5-80-720 A	--	--
--	Parking Lot Resurfacing	9 VAC 5-80-720 A	--	--
--	Decarbonators Vents	9 VAC 5-80-720 A	--	--
--	Relief Valves (excluding air pollution bypass valves)	9 VAC 5-80-720 A	--	--

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

84. **Permit Shield & Inapplicable Requirements** – Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR § 60.18	General Control Device Requirements	Applicable to control devices that are used to comply with applicable subparts of 40 CFR 60 or 40 CFR 61.
40 CFR 60 Subpart K (§ 60.110 - § 60.113)	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	Applicable to storage vessels for petroleum liquids which have a storage capacity greater than 40,000 gallons.
40 CFR 60 Subpart Ka (§ 60.110a - § 60.115a)	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	Applicable to storage vessels for petroleum liquids which has a storage capacity of greater than 40,000 gallons and for which construction is commenced after May 18, 1978.
40 CFR 60 Subpart Kb (§ 60.110b - § 60.117b)	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Applicable to storage vessels with a capacity greater than 40 m ³ that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. Does not apply to vessels used to store beverage alcohol.
40 CFR 60 Subpart DD (§ 60.300 - § 60.304)	Standards of Performance for Grain Elevators	Applies to each affected facility at any grain terminal elevator or any grain storage elevator that commenced construction, modification, or reconstruction after August 3, 1978. Grain terminal elevators located at breweries are exempt from 40 CFR 60 Subpart DD.
40 CFR 60 Subpart VV (§ 60.480 - § 60.489)	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	Applies to affected facilities in the synthetic organic chemicals manufacturing industry. Facilities that produce beverage alcohol are exempt from § 60.482.
40 CFR 60 Subpart WW (§ 60.490 - § 60.496)	Standards of Performance for the Beverage Can Surface Coating Industry	Applies to the following affected facilities in beverage can surface coating lines: each exterior base coat operation, each overvarnish coating operation, and each inside spray coating operation. Applies to affected facilities that commenced construction, modification, or reconstruction after November 26, 1980.
40 CFR 60 Subpart	Standards of Performance for VOC	Applies to each affected facility that is part of a process unit that produces any of the chemicals

Citation	Title of Citation	Description of Applicability
NNN (§ 60.660 - § 60.668)	Emissions From Synthetic Organic Chemical Manufacturing Industry Distillation Operations	listed in § 60.667 as a product, co-product, by-product, or intermediate. Does not apply to any distillation unit operating as part of process unit which produces beverage alcohols.
9 VAC 5 Chapter 60, Part I	Special Provisions	Applies to all existing, new and modified hazardous air pollutant sources for which emission standards are prescribed under Chapter 60.
9 VAC 5 Chapter 60, Part II, Article I	Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants	Applies to all existing, new and modified hazardous air pollutant sources that are subject to NESHAP Standards (40 CFR 61).
9 VAC 5 Chapter 60, Part II, Article II	Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Source Categories	Applies to all existing, new and modified hazardous air pollutant sources that are subject to MACT Standards (40 CFR 63).
40 CFR 82 Subpart B (§ 82.30 - § 82.42, Appendices A-F)	Servicing of Motor Vehicle Air Conditioners	Applies to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner.
40 CFR § 82.156(a)(2)(i)(B)	Required Practices	Applies to persons pressurizing low-pressure appliances.
40 CFR § 82.156(a)(4)(ii)	Required Practices	Applies to persons using recycling and recovery equipment manufactured on or after November 15, 1993.
40 CFR § 82.156(a)(5)	Required Practices	Applies to persons opening MVAC-like appliances.
40 CFR § 82.156(b)	Required Practices	Applies to persons opening and/or disposing of appliances. Does not apply to persons who maintain, service, repair, or dispose of only appliances that they own and that contain pump-out units.
40 CFR § 82.156(c)	Required Practices	Applies to system-dependant equipment that is used with appliances normally containing more than 15 pounds of refrigerant.
40 CFR § 82.156(e)	Required Practices	Applies to the return of refrigerant to appliances, except if the appliance is an MVAC or MVAC-like appliance.
40 CFR § 82.156(g)	Require Practices	Applies to all persons recovering refrigerant from MVACs or MVAC-like appliances for purposes of disposal of the appliances.
40 CFR § 82.156(i)(1)	Required Practices	Applies to owners or operators of commercial refrigeration equipment normally containing more than 50 pounds of refrigerant.
40 CFR § 82.156(i)(2)	Required Practices	Applies to owners or operators of industrial process refrigeration equipment normally containing more than 50 pounds of refrigerant.
40 CFR § 82.156(i)(3)	Required Practices	Applies to owners or operators of appliances normally containing more than 50 pounds of refrigerant.
40 CFR § 82.156(i)(4)	Required Practices	Applies to owners or operators of appliances normally containing more than 50 pounds of refrigerant.

Citation	Title of Citation	Description of Applicability
40 CFR § 82.158(l)	Standards for Recycling and Recovery Equipment	Applies to equipment used to evacuate MVACs and MVAC-like appliances before they are disposed of.
40 CFR § 82.161(a)(3)	Technician Certification	Applies to technicians who maintain, service, or repair low-pressure appliances or dispose of low-pressure appliances.
40 CFR § 82.161(5)	Technician Certification	Applies to technicians who maintain, service, or repair MVAC-like appliances.
40 CFR § 82.164	Reclaimer Certification	Applies to all persons reclaiming used refrigerant for sale to a new owner.
40 CFR § 82.166(j)	Reporting and Recordkeeping Requirements	Applies to persons servicing appliances normally containing 50 or more pounds of refrigerant.
40 CFR § 82.166(k)	Reporting and Recordkeeping Requirements	Applies to owners/operators of appliances normally containing 50 or more pounds of refrigerant.
40 CFR § 82.166(m)	Reporting and Recordkeeping Requirements	Applies to owners/operators of appliances normally containing 50 or more pounds of refrigerant.
40 CFR 60 Subpart A (§ 60.1 - § 60.19)	General Provisions	Applies to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard applicable to the facility. <u>40 CFR 60 Subpart A does not apply to Units 1, 2, 3, 10, 16, 20, 23, 24, 25, 26, 27, 28, 29, 30, 32, and 33.</u>
40 CFR § 60.7(a)(5)	Notification and Recordkeeping	Applies to continuous monitoring systems that are required in accordance with an NSPS standard (40 CFR 60). <u>40 CFR 60.7(a)(5) does not apply to Units 4 and 5.</u>
40 CFR § 60.7(a)(6)	Notification and Recordkeeping	Applies to opacity observations that are required in accordance with an NSPS standard (40 CFR 60). <u>40 CFR 60.7(a)(6) does not apply to Units 4 and 5.</u>
40 CFR § 60.7(a)(7)	Notification and Recordkeeping	Applies to facilities that intend to use continuous opacity monitoring system data to determine compliance with opacity standards contained within NSPS standards (40 CFR 60). <u>40 CFR 60.7(a)(7) does not apply to Units 4 and 5.</u>
40 CFR § 60.7(c)	Notification and Recordkeeping	Applies to owners and operators required to install a continuous monitoring system or monitoring device in accordance with an NSPS standard (40 CFR 60). <u>40 CFR 60.7(c) does not apply to Units 4 and 5.</u>
40 CFR § 60.7(e)	Notification and Recordkeeping	Applies to owners and operators who are required to submit excess emissions and monitoring systems performance reports on a quarterly basis in accordance with an NSPS standard (40 CFR 60). <u>40 CFR 60.7(e) does not apply to</u>

Citation	Title of Citation	Description of Applicability
		<u>Units 4 and 5.</u>
40 CFR § 60.7(f)	Notification and Recordkeeping	Applies to owners and operators who maintain and operate continuous monitoring systems or continuous monitoring devices, or were required to conduct performance tests in accordance with an NSPS standard (40 CFR 60). <u>40 CFR 60.7(f) does not apply to Units 4 and 5.</u>
40 CFR § 60.11(e)(1)	Compliance with Standards and Maintenance Requirements	Applies to facilities that are required to conduct initial compliance testing to demonstrate compliance with an opacity standard contained within an NSPS standard (40 CFR 60). <u>40 CFR 60.11(e)(1) does not apply to Units 4 and 5.</u>
40 CFR § 60.11(e)(2)	Compliance with Standards and Maintenance Requirements	Applies to owners and operators of an affected facility to which an opacity standard in 40 CFR 60 applies. <u>40 CFR 60.11(e)(2) does not apply to Units 4 and 5.</u>
40 CFR§ 60.13	Monitoring Requirements	Applies to all continuous monitoring systems required under applicable subparts of 40 CFR 60. <u>40 CFR 60.13 does not apply to Units 4 and 5.</u>
40 CFR 60 Subpart Db (§ 60.40b - § 60.49b)	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Applies to steam generating units that commenced construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr. <u>40 CFR 60 Subpart Db does not apply to Units 1, 2, 3, 4 and 5.</u>
40 CFR 60 Subpart Dc (§ 60.40c - § 60.48c)	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Applicable to steam generating units for which construction commenced after June 9, 1989, and have a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than 10 MMBtu/hr. Does not apply to boilers that are fueled solely by natural gas. Therefore, <u>40 CFR 60 Subpart Dc does not apply to Units 1, 2, and 3.</u>
40 CFR § 60.42c	Standard for Sulfur Dioxide	Applies to affected facilities that combust coal, coal refuse, coal in combination with any other fuel, and/or oil. <u>40 CFR 60.42c does not apply to Units 4 and 5.</u>
40 CFR § 60.43c	Standard for Particulate Matter	Applies to affected facilities that commence construction, reconstruction, or modification after February 28, 2005, and that combust coal, oil, gas, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 30 MMBtu/hr or greater. <u>40 CFR 60.43c does not apply to Unit 4.</u>
40 CFR § 60.44c	Compliance and Performance Test Methods and Procedures for Sulfur Dioxide	Applies to affected facilities that are subject to the sulfur dioxide standards contained in 40 CFR 60.42c. <u>40 CFR § 60.44c does not apply to Units 4 and 5.</u>

Citation	Title of Citation	Description of Applicability
40 CFR § 60.45c	Compliance and Performance Test Methods and Procedures for Particulate Matter	Applies to affected facilities that commence construction, reconstruction, or modification after February 28, 2005, and that combust coal, oil, gas, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 30 MMBtu/hr or greater. <u>40 CFR 60.43c does not apply to Unit 4.</u>
40 CFR § 60.46c	Emission Monitoring for Sulfur Dioxide	Applies to affected facilities that are subject to the sulfur dioxide standards contained in 40 CFR 60.42c. <u>40 CFR 60.46c does not apply to Units 4 and 5.</u>
40 CFR § 60.47c	Emission Monitoring for Particulate Matter	Applies to affected facilities that commence construction, reconstruction, or modification after February 28, 2005, and that combust coal, oil, gas, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 30 MMBtu/hr or greater. <u>40 CFR 60.43c does not apply to Unit 4.</u>
40 CFR § 60.48c(b)	Reporting and Recordkeeping Requirements	Applies to affected facilities that are subject to the sulfur dioxide standards contained in 40 CFR 60.42c or the particulate matter standards contained in 40 CFR 60.43c. <u>40 CFR 60.48c(b) does not apply to Unit 4.</u>
40 CFR § 60.48c(c)	Reporting and Recordkeeping Requirements	Applies to each coal-fired, residual oil-fired, or wood-fired affected facilities that are subject to the opacity limits under § 60.43c(c). <u>40 CFR 60.48c(c) does not apply to Units 4 and 5.</u>
40 CFR § 60.48c(d)	Reporting and Recordkeeping Requirements	Applies to each affected facility subject to the SO ₂ emission limits, fuel oil sulfur limits, or percent reduction requirements in § 60.42c. <u>40 CFR 60.48c(d) does not apply to Units 4 and 5.</u>
40 CFR § 60.48c(e)	Reporting and Recordkeeping Requirements	Applies to each affected facility subject to the SO ₂ emission limits, fuel oil sulfur limits, or percent reduction requirements in § 60.42c. <u>40 CFR 60.48c(d) does not apply to Units 4 and 5.</u>
40 CFR § 60.48c(h)	Reporting and Recordkeeping Requirements	Applies to each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c. <u>40 CFR 60.48c(h) does not apply to Units 4 and 5.</u>
40 CFR 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	Molson Coors - Shenandoah Brewery is an area source of HAP. It is not subject to this subpart because all of its boilers are gas-fired. Per §63.11195(e), gas-fired boilers are not subject to the subpart.
9 VAC 5-80-10 J.2	Compliance Determination and Verification by Performance Testing	Applies to all existing, new and modified hazardous air pollutant sources for which emission standards are prescribed under Chapter 60.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the

Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

General Conditions

85. **Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)
86. **Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
87. **Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
88. **Permit Expiration** – If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
89. **Permit Expiration** – No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
90. **Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
91. **Permit Expiration** – The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

92. **Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

93. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

94. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period”.

(9 VAC 5-80-110 F)

95. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

96. **Permit Deviation Reporting** – The permittee shall notify the DEQ within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or

preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 94 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

97. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
- a. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification.
 - b. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are the two 97 Million Btu/hr boilers (Unit IDs 4 and 5).
 - c. Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:
 - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

- (4) When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

98. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)
99. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)
100. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)
101. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)
102. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)
103. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

104. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)
105. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)
106. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
 - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
 - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9 VAC 5-40-90 and 9 VAC 5-50-90)
107. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are

being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

- 108. Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

- 109. Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

- 110. Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

- 111. **Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

- 112. **Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

- 113. **Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

- 114. **Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

- 115. **Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

- 116. **Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed, but prior to release of a draft permit.

(9 VAC 5-80-80 E)

- 117. **Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI

(Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

118. **Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)
119. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)
120. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)
121. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.
- (9 VAC 5-80-110 I)

**Fabric Filter Compliance Assurance Monitoring Plan
(Unit ID 10)**

Indicator	Indicator 1-A	Indicator 1-B	Indicator 2
Measurement approach	Opacity	Visible Emission Evaluation (optional - to determine if excursion occurs)	Periodic Structural Inspections
	At a minimum of once per week, visible emission observations shall be conducted at each control device emission point. However, if visible emissions inspections conducted during 12 consecutive weeks show no visible emissions, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.	Method 9 VEE in accordance with 40 CFR 60, Appendix A conducted optionally to determine if an excursion occurs. Results recorded upon completion of each Method 9. If visible emissions are observed by Indicator 1-A and a Method 9 VEE is not conducted, then an excursion has occurred.	Monthly external bag filter inspections by a qualified employee. Results recorded monthly. Annual internal bag filter inspections by a qualified employee. Results recorded upon completion of each inspection.
Indicator range	An excursion is defined as the presence of any visible emission from the control device unless otherwise determined by a Method 9 VEE.	An excursion is defined as an average opacity greater than 5% during one six-minute period in any one hour.	An excursion is defined as failure to perform the monthly or annual inspection of bag filters. Excursions trigger an inspection, corrective action and a reporting requirement.
Quality Improvement Plan (QIP) Threshold	Two excursions in a two-week period per each control device. If monitoring is reduced to once per month for any stack, a QIP will be implemented if one excursion is detected and monitoring will revert to weekly.	Two excursions in a two-week period per each control device. If monitoring is reduced to once per month for any stack, a QIP will be implemented if one excursion is detected and monitoring will revert to weekly.	N/A
<u>Performance criteria:</u> Data Representativeness	Observation of visible emissions indicates possible damage to bag filter.	Observation of visible emissions greater than five percent indicates replacement or maintenance of bag filters is necessary.	Bags in the fabric filters shall be inspected visually for deterioration and remaining bag life monitored.
Verification of operational status	Records that indicate time, facility operational status and results of each observation.	Pressure drop across each filter.	Pressure drop across each filter.
QA/QC practices and criteria	Qualified personnel to perform observations.	Certified Method 9 observer shall perform VEE.	Qualified personnel perform the inspection and maintenance.
Monitoring frequency and data collection procedure	A minimum of once per week observation, unless no emissions observed for 12 consecutive weeks. Monitoring frequency then becomes once per month until visible emissions are observed.	Upon the observation of visible emissions from any fabric filter.	Monthly and annually inspections.

SOURCE TESTING REPORT FORMAT**Report Cover**

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol**Summary**

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
 - a. Operating rate
 - b. Test Methods
 - c. Pollutants tested
 - d. Test results for each run and the run average
 - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations